

## **REMARKS**

Claims 1-38 are pending in the application. Claims 1-2, 33 and 38 have been amended. New claim 39 has been added to the application. Claims 6-7, 9-26 and 34-35 have been cancelled; Applicants reserve the right pursue prosecution of these or similar claims in one or more divisional or continuation applications.

As an initial matter, and because the art-based claim rejections are based on an allegation of obviousness, the Applicants' attorney directs the Examiner's attention to Exhibit A included herewith. Exhibit A is a certificate of award presented by the 21<sup>st</sup> European Photovoltaic Solar Energy Conference and Exhibition to the Applicants in recognition of the Applicants' exhibited device incorporating principles of the present invention. The Applicants' attorney respectfully submits that Exhibit A demonstrates the type of industry praise and acceptance that undermine any position that the instant invention is obvious. See, e.g., Allen Archery, Inc. v. Browning Mfg. Co., 819 F.2d 1087, 1092, 2 USPQ2d 1490, 1493 (Fed. Cir. 1987).

### **Claim Objections**

Claim 1 stands objected to due to the presence of a parenthetical expression therein. Claim 1 has been amended accordingly. As such, the Examiner is respectfully requested to withdraw this objection.

### **Rejections Under 35 U.S.C. §112**

#### **Claim 1**

Claim 1 stands rejected for allegedly improper recitation of the term "comprising." The Applicants traverse this rejection. The Examiner is respectfully reminded that the present application employs English translation of the German-language priority document. Applicants respectfully submit that, upon information and belief, the relevant language used in the priority document is equivalent to "made from" (rather than "consisting of"), an interpretation that

readily contemplates the use of the term “comprising” as recited. Claims 2-5, 8, 27-33 and 36-38 are patentable for the same reason. Accordingly, the Examiner is requested to withdraw this rejection.

### **Claim 2**

The Examiner has rejected claim 2 alleging that the recitation “wherein said outer wires are operably configured for connection to a second terminal bar” is an unsupported broadening thereof. As a remedy, the Examiner recommends “[u]se of the original ‘electrically connected’ language . . . .” The Applicants traverse this rejection. The Applicants respectfully submit that if there is support in the specification for the wires in question to be electrically connected to a terminal bar, then, logically, there must be support for the same wires to be configured for connection to the terminal bar. In other words, the wires must be configured for connection in order to be connected. Claims 3-5, 8, 27-33 and 36-38 are patentable for the same reason. Accordingly, the Examiner is requested to withdraw this rejection.

### **Claims 28 and 29**

The Examiner has rejected claim 28 alleging that the limitation “wherein said wires embedded into said adhesive layer extend generally perpendicularly to a longitudinal axis of said film” has no clear support in the specification. Claim 29 is rejected for a similar reason. However, referring, *e.g.*, to FIGS. 6A-6C, it seems clear to the Applicants’ attorney that the film 10 has a longitudinal axis, and the wires 5’ can extend generally perpendicularly (or parallel) to such axis. The Applicants’ attorney respectfully requests that the Examiner clarify the bases for these rejections. Alternatively, the Examiner is requested to withdraw these rejections.

### **Claim 36**

The Examiner has rejected claim 36 alleging that the limitation “wherein said film is sufficiently thick to be drawn” has no clear support in the specification.

However, paragraph 69, in reference to FIG. 4, of the application clearly states that “[t]he film 10 is lead by the drum 12 over the surface of a rotatable roller 13 and is pulled by a drum 15, simultaneously pulling the wires 5'.” Accordingly, the Examiner is requested to withdraw this rejection.

In view of the foregoing, applicant respectfully submits that all of the Examiner’s rejections under 35 U.S.C. § 112 have been overcome.

**Rejection of Claims 1-5, 27-33 and 36-37 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Little In View of Shiotsuka**

**Claim 1**

Claim 1, as amended, recites in pertinent part “an electrically insulating optically transparent film; an adhesive layer provided on one surface of said film; and a plurality of . . . wires embedded into said adhesive layer, wherein said adhesive layer secures said wires to said film . . . .”

Referring, *e.g.*, to FIG. 5B and paragraph 69 of the specification, film 10 is heated by rollers 13 and 14, so that an adhesive 11 softens, wires 5' immerse in the adhesive 11 and, after cooling down, remain fixed to the film 10 and embedded in the adhesive 11.

In contrast, Little fails to teach or suggest a film, and an adhesive layer provided on one surface of the film, wherein the adhesive layer causes wires to adhere to the film. As acknowledged by the Examiner, the plate of Little (considered by the Examiner to be “film”) is coated with an AR coating (considered by the Examiner to be “adhesive layer”), after which wires are embedded into a heat-softened surface of the plate such that the plate deforms about the wires to hold them on the plate. Little discloses a sintering step which increases the refractive index and serves to improve adhesion of the AR coating to the surface, but this is not suggestive that the AR coating acts as an adhesive

to hold the wires on a film as recited in the Applicants' claims. It cannot be reasonably said that Little teaches or suggests that the AR coating in any manner causes adherence of the wires to the plate.

Shiotsuka fails to supply the teachings missing from Little, namely an optical film and wires secured to the film by an adhesive layer. Additionally, Shiotsuka, like Little, fails to teach or suggest using a low melting point alloy operable to secure the wires to the surface of a semiconductor (as opposed to the surface of a bus bar).

**Claims 2-5, 27-33 and 36-37**

Claims 2-5, 27-33 and 36-37 are allowable at least due to their dependencies from claim 1.

**Rejection of Claims 1-4, 27-29, 31, 33 and 36-38 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Nath In View of Ichinose**

**Claim 1**

As is the case with the Little reference, Nath fails to teach or suggest a film, and an adhesive layer provided on one surface of the film, wherein the adhesive layer causes wires to adhere to the film. Moreover, Ichinose fails to supply the teachings missing from Nath, namely an optical film and wires secured to the film by an adhesive layer.

Additionally, the Applicants respectfully submit that there is no motivation to combine the Nath and Ichinose references. While Ichinose does teach the use of a metal alloy to prevent corrosion, it does not follow, and Ichinose does not teach or suggest, that a metal having a low melting point is needed; a metal with a high melting point suffices for the purposes of the Ichinose reference. Moreover, because of the protective purpose and function of the encapsulant 25 of Nath, as well as the fact that Nath contemplates that, prior to engagement of

the encapsulant, the grid fingers 24 are already attached to the electrically conductive surface 22, there are no anti-corrosive or connective needs for the teachings of Ichinose to meet.

**Claims 2-4, 27-29, 31, 33 and 36-38**

Claims 2-4, 27-29, 31, 33 and 36-38 are allowable at least due to their dependencies from claim 1.

**Conclusion**

In view of the above, Applicants request a finding of allowability for all pending claims. If the Examiner has any questions, the Examiner is invited to contact the undersigned. **If the Examiner does not agree with the Applicant's position that all pending claims are allowable, the Examiner is respectfully requested to contact the undersigned to arrange a discussion of the claims prior to issuing an Office Action.**

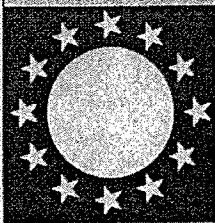
Respectfully submitted,

BLACK LOWE & GRAHAM<sup>PLLC</sup>

A handwritten signature in black ink, appearing to read 'P. G. Scott Born', with a horizontal line extending to the right.

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Encl.: Exhibit A



On the occasion of the 21st European Photovoltaic Solar Energy Conference and Exhibition  
4-8 September 2006, Dresden, Germany the presentation of

*A. Schneider, L. Rubin & G. Rubin*

*"The Day4<sup>TM</sup> Electrode*

*A New Metallization Approach Towards Higher Solar Cell and Module Efficiencies"*  
has been selected by the official jury as the winner of the

## Poster Award

in the thematic area of *"Fundamentals, Novel Devices and New Materials"*

This outstanding scientific poster was deemed to be a exemplary contribution to the

21st European Photovoltaic Solar Energy Conference and Exhibition.

The Conference Director

Dr. Wolfgang Palz

The Conference Chairman

Dr. Jef Poortmans

The Technical Programme

Chairman

Dr. Heinz Ossenbrink